

Notice of Allowability

Application No.

10/734,676

Applicant(s)

OGIHARA ET AL.

Examiner

Art Unit

Stephen W. Smoot

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment filed on 21 June 2006.
2. ☒ The allowed claim(s) is/are 10, 13-15, 18-19, 27-38.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



Stephen W. Smoot
Patent Examiner
Art Unit 2813

This Office action is in response to applicant's amendment filed on 21 June 2006.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nick Bromer on 31 July 2006.

2. The application has been amended as follows:

In the Claims:

In claim 15, line 5, change "said first interdielectric layer" to --a first interdielectric layer disposed between said substrate and said adhesion layer--.

3. Claims 10, 13-15, 18-19, 27-38 are allowed.

4. The following is an examiner's statement of reasons for allowance:

- Claims 10, 13-15 are allowed because the prior art of record does not teach or suggest, in combination with the other claim limitations, a semiconductor structure that includes an adhesion layer mainly consisting of semiconductor material disposed on a substrate and a semiconductor thin film bonded on the adhesion layer, further comprising an interconnecting layer for electrically connecting a semiconductor device that corresponds to the semiconductor thin film to an integrated circuit that corresponds to the substrate, wherein an interdielectric layer electrically isolates the interconnecting layer from the semiconductor thin film and a part of the substrate;
- Claim 19 is allowed because the prior art of record does not teach or suggest, in combination with the other claim limitations, a semiconductor structure that includes an adhesion layer mainly consisting of semiconductor material disposed on a substrate and a semiconductor thin film bonded on the adhesion layer, wherein a plurality of semiconductor thin films are arranged on the adhesion layer at regular intervals; and
- Claims 18, 27-38 are allowed because the prior art of record does not teach or suggest, in combination with the other claim limitations, a semiconductor structure that includes an adhesion layer mainly consisting of semiconductor material disposed on a substrate and a semiconductor thin film bonded on the adhesion layer, wherein a main constituent of the adhesion layer is different from a main constituent of the semiconductor thin film, wherein the semiconductor material has an affinity to both the semiconductor thin film and the substrate and

wherein the semiconductor thin film includes at least one semiconductor device that is any of a light emitting element, a light sensing element, a Hall element, or a piezoelectric element.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen W. Smoot whose telephone number is 571-272-1698. The examiner can normally be reached on M-F (8:00 am to 4:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead, Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SWS